



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

24

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/658,838

09/08/2003

Alan M. Warwick

13768.440

3005

47973 7590 01/25/2007  
WORKMAN NYDEGGER/MICROSOFT  
1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UT 84111

EXAMINER

LEMMA, SAMSON B.

ART UNIT

PAPER NUMBER

2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,838	<b>Applicant(s)</b> WARWICK ET AL.	
	<b>Examiner</b> Samson B. Lemma	<b>Art Unit</b> 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***DETAILED ACTION***

1. This office action is in reply to an amendment filed on November 9, 2006.  
**All independent claims 1, 14, 24 and 30 are amended. Claims 1-34 are pending/examined.**

### ***Response to Arguments***

2. Applicant's remark/arguments filed on November 9, 2006 regarding **claims 1-34** have been fully considered but they are not persuasive.

Applicant argument is based on the reference used in rejecting the corresponding limitation recited in the independent claims 1, 14, 24 and 30. Applicant in particular argued that the limitations which is now added in the independent claims are not disclosed by the references used in the record namely, the combination of **Dicorpo and Narain**.

In order to support his argument, Applicant wrote the following.

"Dicorpo fails, however, to teach or suggest determining that if the identified security configuration were applied to the selected initiator, the applied identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of the other of the plurality of initiators, as recited in claim 1. Dicorpo also fails to teach or suggest upon determining that the identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of the other of the plurality of initiators, an act of configuring the selected initiator using the identified security configuration, as recited in claim 1. At least for either of these reasons Applicants respectfully submit that claim 1 patentably defines over the prior art of record. For at least either of the same reasons, claims 14, 24, and 30 also patentable define over the prior art of record."

**Examiner disagrees with the above argument.**

Art Unit: 2132

Examiner would point out that the combinations of Dicorpo and Narain discloses each and every limitation of the amended independent claims as shown below.

**As per independent claims 1, 14, 24 and 30 Dicorpo discloses in a computer system that including a plurality of initiators, [Abstract, “plurality of initiators”, and figure 1, ref. Num “110” and “120”] each for initiating communication with target devices [Abstract, see, “Physical device” and column 19, lines 17-19; figure 1, 5, 7 and 8] (In some embodiments, the virtual LUN can have a specified interface definition, for example a general definition that can emulate many different physical devices) over a network, [column 11, lines 15-18] ( Internet SCSI (iSCSI)-to-SCSI applications,) a method for configuring the computer system to securely communicate with a target device over the network, [Abstract, “an apparatus comprises a data path capable of coupling a physical device to a plurality of initiators”) the method comprising the following performed by an abstraction module that configures each of the plurality of initiators in a manner that security conflicts between the plurality of initiators is avoided: [Abstract, “A controller comprises an executable process that creates a virtual device object that resolves conflicting concurrent attempts to access the physical device by a plurality of initiators.”)]**

- **An act of exposing a common interface that may be used to configure any of the plurality of initiators; [Abstract and column 13, lines 34-36 and figure 7] (See abstract, “An interface is coupled to the data path and forms a command pathway between the plurality of initiators and the physical device”. And on column 13, lines 34-36, it has been disclosed that the protocol interface 710 serves as a common interface point for external communications.)**

Art Unit: 2132

- **An act of receiving an indication through the common interface that a selected initiator from among the plurality of initiators is to be configured to communicate with a selected target device;** [Abstract; column 4, lines 36-38; column 13, lines 27-37 and figure 7]( For instance, on column 4, lines 36-38 and on abstract, it has been disclosed that an interface is coupled to the data path and forms a command pathway between the plurality of initiators and the physical device. Furthermore, at least on column 13, lines 27-37, the following has been disclosed. " The protocol interface 710 performs virtual/physical mapping to facilitate virtualization of storage LUNs. The protocol interface 710 receives commands and configures information blocks for transmission, for example by matching status to the correct command, and supplying header information for status frames. The protocol interface 710 also handles initiator protocol, for example by obtaining unit attention of the first access of an initiator. The protocol interface 710 can manage signals from multiple LUNs. The protocol interface 710 serves as a common interface point for external communications.")

- **An act of retrieving security information from a database [Figure 7, ref. Num "722" or/and "724"] that includes information that is relevant to configuring security for any of the plurality of initiators; an act of identifying a security configuration of the selected initiator using the retrieved security information;**[Column 17, lines 38-46 and column 16, lines 40-47 and Column 15, lines 62-column 16, lines 47; column 13, lines 46-column 14, line 4]

- **An act of determining if the identified security configuration were applied to the selected initiator, the applied identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of other of the plurality of initiators;**

**and upon determining that the identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of the other of the plurality of initiators, an act of configuring the selected initiator using the identified security configuration. [See, abstract and claim 1]** (an interface coupled to the data path and forming a command pathway between the plurality of initiators and the physical device; and a controller coupled to the data path and coupled to the interface, the controller comprising an executable process that creates a virtual device object that resolves conflicting concurrent attempts to access the physical device by a plurality of initiators, the virtual device object being capable of protecting state of the physical device during successive data transfer and media movement operations by emulating responses of the physical device and redirecting access to the physical device when the physical device becomes available.)

**Dicorpo** does not explicitly teach that **retrieving security information that is relevant to configure security from a database.**

However, in the same field of endeavor, **Narain discloses the concept of retrieving security information that is relevant to configure security from a database.** [See, at least figure 1, ref. Num "150" and paragraph 0028; paragraph 0007; paragraph 0015].

Furthermore Narain on paragraph, 0021 and 0047-0048 including table 1, shows how for instance, IPsec has a number of security configuration options and must be configured with the appropriate IPsec security information to avoid that the security information of one does not conflict with the security information of any other security information specially when they are supplied by different venders, by providing intermediate abstractions and forming vendor

Art Unit: 2132

neutral requirements that represents instructions that are directly related to setting security configuration parameters of devices that support or implement end-to-end requirement. [See also paragraph 0006 and claim 6] *(Examiner would also indict that the above security configuration problem is what the applicants invention is trying to solve. See for instance applicant specification on page 4, paragraph 0007)*

In response to applicant's arguments against the primary references individually in particular Dicorpo reference's, examiner would point out that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Though the specification could contain some allowable subject matter, the independent claims are not yet been written to include such limitations. For instance, applicant could elaborate or specifically indicate what the security configuration information is, in the independent claim itself, otherwise such term is a broad term. Furthermore it has been found that the present amendment made does not basically change the scope of the independent claims and is something, which is already disclosed, by the combination of the references. Therefore the rejection is maintained till applicant further amend at least the independent claims and successfully overcome the ground of rejection set forth in this office action.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2132

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dicorpo et al (hereinafter referred as **Dicorpo**) (U.S. Patent 6,816,917 B2) (filed on 01/15/2003) in view of **Narain** (hereinafter referred as **Narain**) (U.S. Publication No: 2003/0084135 A1) (filed on September 28, 2001)
5. **As per claims 1, 14-15, 24 and 30** Dicorpo discloses in a computer system that including a plurality of initiators, [Abstract, "plurality of initiators", and figure 1, ref. Num "110" and "120"] **each for initiating communication with target devices [Abstract, see, "Physical device" and column 19, lines 17-19; figure 1, 5, 7 and 8]** (In some embodiments, the virtual LUN can have a specified interface definition, for example a general definition that can emulate many different physical devices) **over a network,** [column 11, lines 15-18] ( Internet SCSI (iSCSI)-to-SCSI applications,) **a method for configuring the computer system to securely communicate with a target device over the network,** [Abstract, "an apparatus comprises a data path capable of coupling a physical device to a plurality of initiators") **the method comprising the following performed by an abstraction module that configures each of the plurality of initiators in a manner that security conflicts between the plurality of initiators is avoided:** [Abstract, "A controller comprises an executable process that creates a virtual device object that resolves conflicting concurrent attempts to access the physical device by a plurality of initiators.")

- **An act of exposing a common interface that may be used to configure any of the plurality of initiators;** [Abstract and column 13, lines 34-36 and figure 7] (See abstract, "An interface is coupled to the data path and forms a



Art Unit: 2132

command pathway between the plurality of initiators and the physical device". And on column 13, lines 34-36, it has been disclosed that the protocol interface 710 serves as a common interface point for external communications.)

- **An act of receiving an indication through the common interface that a selected initiator from among the plurality of initiators is to be configured to communicate with a selected target device;** [Abstract; column 4, lines 36-38; column 13, lines 27-37 and figure 7]( For instance, on column 4, lines 36-38 and on abstract, it has been disclosed that an interface is coupled to the data path and forms a command pathway between the plurality of initiators and the physical device. Furthermore, at least on column 13, lines 27-37, the following has been disclosed. " The protocol interface 710 performs virtual/physical mapping to facilitate virtualization of storage LUNs. The protocol interface 710 receives commands and configures information blocks for transmission, for example by matching status to the correct command, and supplying header information for status frames. The protocol interface 710 also handles initiator protocol, for example by obtaining unit attention of the first access of an initiator. The protocol interface 710 can manage signals from multiple LUNs. The protocol interface 710 serves as a common interface point for external communications.")

- **An act of retrieving security information from a database [Figure 7, ref. Num "722" or/and "724"] that includes information that is relevant to configuring security for any of the plurality of initiators; an act of identifying a security configuration of the selected initiator using the retrieved security information;**[Column 17, lines 38-46 and column 16, lines 40-47 and Column 15, lines 62-column 16, lines 47; column 13, lines 46-column 14, line 4]

Art Unit: 2132

- **An act of determining if the identified security configuration were applied to the selected initiator, the applied identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of other of the plurality of initiators; and upon determining that the identified security configuration would not cause the selected initiator to conflict with any of the existing security configurations of the other of the plurality of initiators, an act of configuring the selected initiator using the identified security configuration. [See, abstract and claim 1] (an interface coupled to the data path and forming a command pathway between the plurality of initiators and the physical device; and a controller coupled to the data path and coupled to the interface, the controller comprising an executable process that creates a virtual device object that resolves conflicting concurrent attempts to access the physical device by a plurality of initiators, the virtual device object being capable of protecting state of the physical device during successive data transfer and media movement operations by emulating responses of the physical device and redirecting access to the physical device when the physical device becomes available.)**

**Dicorpo** does not explicitly teach that **retrieving security information that is relevant to configure security from a database.**

However, in the same field of endeavor, **Narain discloses** the concept of **retrieving security information that is relevant to configure security from a database.** [See, at least figure 1, ref. Num "150" and paragraph 0028; paragraph 0007; paragraph 0015].

Furthermore Narain on paragraph, 0021 and 0047-0048 including table 1, shows how for instance, IPsec has a number of security configuration options

and must be configured with the appropriate IPSec security information to avoid that the security information of one does not conflict with the security information of any other security information specially when they are supplied by different vendors, by providing intermediate abstractions and forming vendor neutral requirements that represents instructions that are directly related to setting security configuration parameters of devices that support or implement end-to-end requirement. [See also paragraph 0006 and claim 6] *(Examiner would also indicate the fact that the above security problem is what the applicant's invention is trying to solve. See for instance applicant specification on page 4, paragraph 0007)*

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine the features of having a particular configuration database for **retrieving security information that includes configuring security** as per teachings of **Narain** in to the method as taught by **Dicorpo** for the purpose avoiding localizing instructions to each devices by cataloging all abstractions for all algorithms in configuration database and ultimately creating end-to-end requirement for a very large class of system or network. [See Narain; paragraph 0019]

6. **As per claims 2-3 and 16-17**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses, the method wherein the identified security configuration is different than the retrieved security information. [figure 7; and Column 17, lines 38-46 and column 16, lines 40-47 and Column 15, lines 62-column 16, lines 47; column 13, lines 46-column 14, line 4]
7. **As per claims 4-5 ;18-19 and 28-29**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Narain** discloses

Art Unit: 2132

the method, wherein the retrieved security information comprises IPSec configuration information.[Paragraph 0021]

8. **As per claims 6 and 20**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the selected initiator is configured to cause communication to occur with the target device using iSCSI. [column 11, lines 15-18] ( Internet SCSI (iSCSI)-to-SCSI applications..)
9. **As per claims 7 and 21**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Narain** discloses the method, wherein the act of retrieving security information from a database comprises an act of retrieving the security information from an Active Directory. [See, at least figure 1, ref. Num “150” and paragraph 0028; paragraph 0007; paragraph 0015]
10. **As per claims 8 and 22**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the selected initiator is a hardware initiator. [Abstract; and figure 1, ref. Num “110” and “120”]
11. **As per claims 9 and 23**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein, wherein the selected initiator is a software initiator. [“making it a hardware/software is an arbitrary design choice”]
12. **As per claim 10**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Narain** disclose the method, wherein the act of retrieving security information occurs in response to the act of the abstraction module receiving the indication. [Abstract; paragraph 0019]

Art Unit: 2132

13. **As per claims 11-12 and 31**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the indication through the common interface is received in response to a request to communicate with the selected target device. [Abstract and column 13, lines 34-36 and figure 7] (See abstract, "An interface is coupled to the data path and forms a command pathway between the plurality of initiators and the physical device". And on column 13, lines 34-36, it has been disclosed that the protocol interface 710 serves as a common interface point for external communications.)
14. **As per claims 13**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the indication through the common interface is received in response to initializing the computer system. [Column 14, lines 5-15] (The command filter 712 also performs initialization for LUN virtualization. On system powerup and possibly other conditions, the system begins with no known state, no starting information. The initialization procedure collects information for storage in the device state cache 722 to enable LUN virtualization. In one embodiment, the command filter 712 calls for initialization and the LUN monitor 714 accesses storage elements in the device state cache 722 and determines that no state is defined. The LUN monitor 714 accesses the device profile cache 724 to fill storage elements in the device state cache 722)
15. **As per claims 25 and 32**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the one or more computer-readable media are physical memory media.[Figure 5; ref. Num "530") ( The router, SCSI Controller 524, interprets the command and places the interpreted command in the **buffer memory 530**)

Art Unit: 2132

16. **As per claims 26 and 33**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the one or more computer-readable media is persistent memory. [Figure 7; ref.Num"724"; column 15, lines 43-45] ( The device profile cache 724 is typically a non-volatile memory or storage that stores command and response sequences)
17. **As per claims 27 and 34**, the combination of **Dicorpo and Narain** discloses the method as applied to claims above. Furthermore, **Dicorpo** discloses the method, wherein the one or more computer-readable media is volatile system memory. [column 15, lines 39-40; Figure 7, ref.Num "722"] ( The device state cache 722 is a volatile memory or storage that stores]

### ***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is

Art Unit: 2132

571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4: 30 pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**SAMSON LEMMA**

*S.L.*

01/10/2007

  
GILBERTO BARRON JR  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100